

Fenrir Flight 25:

Video can be found here:

- Rear van cam: <https://www.flickr.com/photos/100936386@N02/18003839383/in/dateposted-public/>
- Manual landing: <https://www.flickr.com/photos/100936386@N02/17995767353/in/dateposted-public/>

The goal for this flight was to put doublets on theta and then phi commands to test attitude tracking. An auto throttle was running with a set point of 23 m/s during the doublets. We got a full pitch doublet and observed good pitch tracking, but poor roll tracking. Gains for this flight were:

- `static double roll_gain[3] = {0.15,0.30,0}; // PI gains for roll tracker and roll damper`
- `static double pitch_gain[3] = {-0.3,-0.40,0}; // PI gains for theta tracker and pitch damper`
- `static double v_gain[2] = {0.091, 0.020}; // PI gains for speed tracker`

We modified the trim a little for this flight by mixing the autopilot control surface trim onto L4/R4 as well and reduced to 5 deg left roll and 5 deg pitch up.